

Weekly Report (2015.8.3~8.9)

Done

- 1) Finish the design report of the group visualization within the HUAWEI project. I am not able to connect to my computer in 308 now, so I will only make a brief conclusion in this report.

For the layout, if acceptable, the layout I proposed in the last weekly report(Figure 1) would be a good choice as it is intuitive and easy to implement.

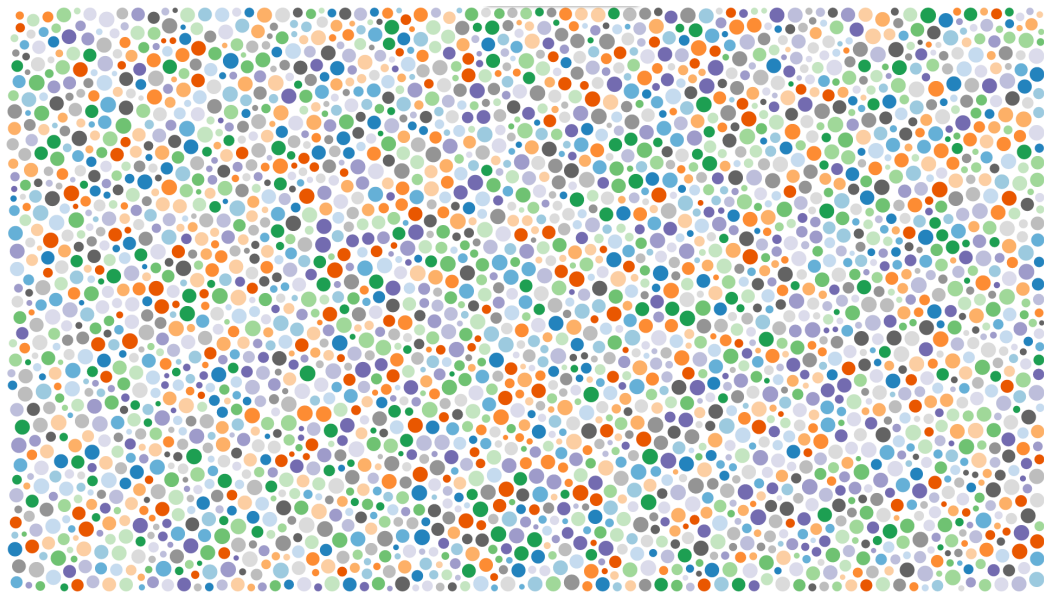


Figure 1 3000 groups layout

Otherwise, we need to first do hierarchical clustering. Then we showing only 1 layer or 2 continuous layers at one time to avoid too many entities on the screen at the same time. We can use the hierarchical clustering tree(Figure 2) as a context, as it is used in “ASK-GraphView”.

The main issue is how to decide a meaningful clustering method, which can give users enough clues in choosing which node to expand/explore next. We may need to discuss with HUAWEI, or maybe it will be easier once we get the sample data.



Figure 2 large graph exploration context, the grey triangle indicates the position of the displayed part.

In the last mail, you proposed using a 750*750 matrix to show the connections of the groups. I have tried to make such a matrix with D3 directly, and find the

interaction is not so smooth. We may make the matrix smaller and employ the matrix summary technique introduced in “ZAME”, as shown below:

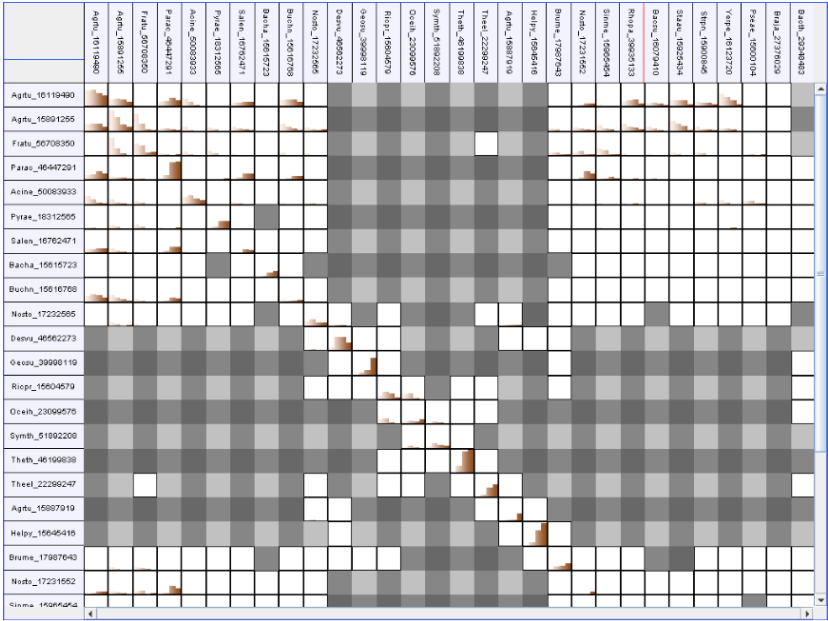


Figure 3 matrix summarize technique

To Do

- 1) Make more detailed design if we get sample data next week.
- 2) Otherwise, reading more papers about large graph visualization.